

TITLE OF THE INVENTION

IMAGE TRANSMISSION DEVICE AND INFORMING METHOD THEREOF

CROSS-REFERENCE TO RELATED APPLICATIONS

5 This application is based upon and claims the
benefit of priority from the prior Japanese Patent
Application No. 2001-043825, filed February 20, 2001,
the entire contents of which are incorporated herein by
reference.

BACKGROUND OF THE INVENTION

10 1. Field of the Invention

The present invention relates to an image
transmission device provided with a function for
transmitting an image obtained, for example, by reading
an original document by a scanner to other internet
15 facsimile terminal via a network in a predetermined
internet facsimile system and a function for
transmitting an electronic mail attached with the image
to an arbitrary terminal such as other computer
terminal or the like via a network despite an Internet
20 facsimile system and its informing method thereof.

2. Description of the Related Art

As a method for communicating an image to a remote
place, a digital complex machine is popular by the use
of a PSTN (Public Switched Telephone Network) and an
25 ISDN (Integrated Services Digital Network). In the
first instance, this kind of digital complex machine
can be easily operated and secondary, this kind of

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digital complex machine can inform a message even if a party is absent. Therefore, this kind of digital complex machine is widely distributed not only in a business field but also in a household.

5 A communication standard of a facsimile by the use of the PSTN and the ISDN is recommended as a standard of a G3 facsimile and a G4 facsimile.

10 A first advantage of such a conventional facsimile is to enable the data to be transferred at the highest communication speed allowable by a bandwidth of a communication line by securing a communication line with respect to a facsimile directly at a receiving side. A second advantage thereof is to enable to check that the data has been certainly transmitted by

15 directly communicating with a party. Further, a third advantage of such a conventional facsimile is to enable to transmit the data certainly in order to perform a capacity negotiation to check whether a transmission data system is allowable at the receiving side or not.

20 On the other hand, as the Internet has been generalized, a service to use Internet in place of a conventional circuit exchange network has been popular.

25 Particularly, when the transmission distance and the data amount are large, it is possible to keep a communication cost lower by transmitting the data via Internet. Therefore, an Internet digital complex machine provided with a function to transmit and

receive the image via the Internet in addition to a function owned by a normal digital complex machine has appeared.

5 This kind of Internet digital complex machine generally transmits the image data as an attached file of the electronic mail through the Internet.

Therefore, the image data is transferred without connection. Accordingly, a negotiation performed by the G3 facsimile and the G4 facsimile is not performed
10 and a communication form is taken such that a transmission side unilaterally transmits the image.

As described above, the Internet facsimile transfers the image by the use of the electronic mail. Accordingly, even when a terminal of a transmission
15 destination is not an Internet facsimile terminal, it is possible for a terminal of a computer such as a personal computer or the like to receive the image transfer if this computer terminal has a function to receive the electronic mail.

20 However, an image file format to be used for the Internet facsimile is not popular for a computer terminal, so that it is difficult for the computer terminal to process the image file format properly.

Therefore, in order to transfer the image to the
25 computer terminal, it is considered that a function to convert the image data into a file format, for example, a PDF (Portable Document Format) or the like, which is

standard for the computer terminal, is provided and such a file format for a computer and a file format for the Internet facsimile are selectively used. However, a user should designate which file format should be used, so that this involves a problem such that a normal image communication is not performed if the user's designation of the file format is wrong.

BRIEF SUMMARY OF THE INVENTION

An object of the present invention is to provide an image transmission device with a good usability and its informing method.

According to the embodiment of the invention, on the basis of the class information stored in an information storing unit in association with a mail address which is designated as a transmission destination, the confirmation result of the system designation is informed.

Additional objects and advantages of the invention will be set forth in the description which follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and obtained by means of the instrumentalities and combinations particularly pointed out hereinafter.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

The accompanying drawings, which are incorporated in and constitute a part of the specification,

illustrate embodiment of the invention, and together with the general description given above and the detailed description of the embodiment given below, serve to explain the principles of the invention.

5 FIG. 1 is a perspective view of a digital complex machine, which is constructed by applying an image transmission device according to an embodiment of the present invention;

10 FIG. 2 is a block diagram for illustrating a construction of a substantial part of a digital complex machine, which is constructed by applying an image transmission device according to an embodiment of the present invention;

15 FIG. 3 is a view for illustrating an example of the storage data of a transmission destination terminal type storage table which is set in an information storing unit shown in FIG. 2;

20 FIG. 4 is a flow chart for showing a processing procedure when performing the process upon receiving the mail by a CPU shown in FIG. 2;

 FIG. 5 is a flow chart for showing a processing procedure upon performing the image transmission process by a CPU shown in FIG. 2; and

25 FIG. 6 is a flow chart for showing a processing procedure upon processing the image transmission by a CPU shown in FIG. 2.

DETAILED DESCRIPTION OF THE INVENTION

Then, an embodiment of the present invention will be described with reference to the drawings below.

FIG. 1 is an appearance view of a digital complex machine, which is constructed by applying an image transmission device according to an embodiment of the present invention.

In FIG. 1, a reference numeral 1 is a digital complex machine. A original document mounting table 2 is mounted on an upper surface of this digital complex machine 1. This original document mounting table 2 is composed of a glass and a scanner 17 is provided within it. A reference numeral 3 is a discharge unit, from which a copied paper is discharged, and a reference numeral 24 is an operating/displaying unit. Alternatively, in a steel case located at a lower side of the discharge unit 3, a CPU 11, a printer, ... or the like are mounted to be described later with reference to FIG. 2.

In the next place, with reference to FIG. 2, a block diagram illustrating a construction of a substantial part of this digital complex machine will be described. The digital complex machine 1 comprises a CPU 11, a ROM 12, a RAM 13, an information storing unit 14, an image storing unit 15, a coding/decoding unit 16, a scanner 17, a printer 18, a modem 19, an NCU 20, an telephone controlling unit 21, a circuit signal

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detecting unit 22, a LAN interface 23, an operating/
displaying unit 24 and a clock unit 25.

Then, the a CPU 11, the ROM 12, the RAM 13, the
information storing unit 14, the image storing unit 15,
5 the coding/decoding unit 16, the scanner 17, the
printer 18, the modem 19, the NCU 20, the circuit
signal detecting unit 22, the LAN interface 23, the
operating/displaying unit 24 and the clock unit 25 are
connected to each other via a system bus 26.
10 Additionally, the modem 19 and the telephone
controlling unit 21 are connected to the NCU 20 and the
circuit signal detecting unit 22 each is connected to
the telephone controlling unit 21.

The CPU 11 realizes the operation as the digital
15 complex machine by performing the control processing in
order to generally control each unit on the basis of
the control program which is stored in the ROM 12.

The ROM 12 stores the control program or the like
of the CPU 11.

20 The RAM 13 is used as a work area or the like to
store various information necessary for the CPU 11 to
perform various processes.

The information storing unit 14 uses, for example,
a flash memory or the like and it stores various
25 setting information and other information. A portion
of the storage area of this information storing unit 14
is set in a transmission destination terminal type

storage table as an address storing means and a class
information storing means. As shown in FIG. 3, in
addition to an area to store a mail address, an area to
store the terminal type information indicating whether
5 a terminal having the mail address is an internet
facsimile (IFAX) or other terminal in association with
each mail address is set in this transmission
destination terminal type storage table.

For example, the image storing unit 15 uses a mass
10 storage DRAM and a mass storage hard disk device or the
like and it temporarily stores the received image data
and the image data waiting for transmission.

The coding/decoding unit 16 decodes the image data
to which is coded for compressing the redundancy as
15 well as performs the coding processing for compressing
redundancy with respect to the image data.

The scanner 17 reads a transmitter original
document and generates the image data indicating this
transmitter original document.

20 The printer 18 prints out an image indicated by
the image data on the recording paper.

The modem 19 generates a facsimile transmission
signal by modulating the image data and generates a
command transmission signal by modulating a command to
25 be given from the CPU 11. The modem 19 transmits these
transmission signals to a PSTN subscriber's line 2 via
an NCU 20. Alternatively, the modem 19 demodulates the

facsimile transmission data, which arrives via the PSTN subscriber's line 2 and is given via the NCU 20, to reproduce the image data and demodulates the command transmission signal to reproduce a command.

5 The PSTN subscriber's line 2 contained in the PSTN 3 is connected to the NCU 20. Further, the NCU 20 monitors a condition of this connected PSTN subscriber's line 2 and performs the transmission process of this connected PSTN subscriber's line 2 to a
10 network or the like. Alternatively, the NCU 20 sets a level as well as equalizes a facsimile transmission signal to be transmitted to the PSTN subscriber's line 2.

 An external telephone set 4 is connected to the
15 telephone controlling unit 21 according to need. Then, the telephone controlling unit 21 performs a well known control process so that a call can be established by the use of the connected external telephone set 4 through the PSTN subscriber's line 2.

20 The circuit signal detecting unit 22 receives a signal arriving through the PSTN subscriber's line 2 via the NCU 20 and the telephone controlling unit 21 to detect the arrival of a predetermined signal.

 Internet 7 is connected to the LAN interface 23
25 via a LAN circuit 5 and a mail server 6. Then, the LAN interface 23 transmits the data via the LAN circuit 5 or the Internet 7.

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The operating/displaying unit 24 has a key inputting unit for receiving various indicating inputs with respect to the CPU 11 by the user and a display unit for displaying various information to be informed to the user under the control of the CPU 11 or the like.

The clock unit 25 always performs the clock operation and outputs the current time information indicating the current time.

As a control means to be realized by operating the CPU 11 on the basis of a control program stored in the ROM 12, the digital complex machine according to the embodiment has a first transmission means, a second transmission means, a mail receiving means, a class information generating means, a first informing control means and a second informing control means in addition to a well known and popular one in the digital complex machine.

Here, the first transmission means performs the image transmission (hereinafter, referred to as Internet facsimile transmission) according to an Internal facsimile system. That is, this first transmission means converts the image data into an image file in a TIFF (Tagged Image File Format) system in accordance with, for example, an ITU-T (International Telecommunication Union-Telecommunication Sector) which is defined by an

Internet facsimile system and further, the first transmission means generates an electronic mail in a predetermined format (i.e., a format defined by the Internet facsimile system) attached with this image file to transmit it. Further, when the user designates the Internet facsimile system as a transmission system, this first transmission means performs the Internet facsimile transmission. Alternatively, this first transmission means has a transmission confirmation mode as a first mode. This transmission confirmation mode adds predetermined information, which requires the transmission destination to return a response of an electronic mail as a transmission confirmation notice defined by the Internet facsimile system, to the electronic mail. Then, the first transmission means decides to use this transmission confirmation mode or not depending on the mode designation by the user. Thus, when this transmission confirmation mode is not used, the transmission destination is not required to return a response of the electronic mail as the transmission confirmation notice and this condition corresponds to a second mode.

The second transmission means performs the image transmission to the computer terminal despite an Internet facsimile system. That is, the second transmission means converts the image data into an image file in a standard file format by the computer

terminal and further, the second transmission means generates an electronic mail attached with this image file in an arbitrary format to transmit it.

Alternatively, according to the embodiment, it is

5 assumed that this second transmission means uses a PDF format as a file format and the image transmission due to this second transmission means is referred to as the PDF transmission. Then, this second transmission means performs the PDF transmission when the user designates
10 a non-Internet facsimile system as a transmission system. Alternatively, this second transmission means has the transmission confirmation mode. This second transmission confirmation mode adds the predetermined information, which requires the transmission
15 destination to return a response of an electronic mail as a transmission confirmation notice defined by a general electronic mail protocol which is different from the Internet facsimile system, to the electronic mail. Then, the second transmission means decides to
20 use this transmission confirmation mode or not depending on the mode designation by the user.

The mail receiving means receives the electronic mail, which is arrived via the LAN circuit 5 and is addressed to itself.

25 In the case that the image file is attached to the received electronic mail, the class information generating means identifies whether the terminal of the

transmitter is an Internet facsimile terminal or a
computer terminal other than the Internet facsimile
terminal on the basis of a file format of this attached
image file. Then, the class information generating
5 means stores the terminal type information indicating
the identification result in the transmission
destination terminal type storage table of the
information storing unit 14.

10 If a mail address designated as a transmission
destination is stored in the transmission destination
terminal type storage table of the information storing
unit 14 when the image transmission is required and
further, the terminal type information is stored in
association with this mail address, the first informing
15 control means estimates whether the transmission system
designated by the user on the basis of this terminal
type information is appropriate or not. Then, if it is
estimated that the transmission system is not
appropriate, the first informing control means makes
20 the operating/displaying unit 24 display a message to
prompt the user to check the designation of the
transmission system.

The second informing control means makes the
operating/displaying unit 24 display a message to
25 prompt the user to check the transmission confirmation
mode if the transmission confirmation mode is OFF
despite the altered transmission system is the Internet

facsimile transmission system or if the transmission confirmation mode is ON despite the altered transmission system is the PDF transmission when the user designates the alternation of the transmission system in accordance with the message displayed under the control of the first informing control means.

In the next place, the operation of a digital complex machine constructed as described above will be explained below. The digital complex machine according to the embodiment has a copying function, a printing function or a G3 facsimile function or the like. However, the operations for realizing these functions are the same as those of the conventional digital complex machine, so that the explanations thereof are herein omitted but the operations of the Internet facsimile function and the function for transmitting the image to the computer terminal will be explained in detail below.

At first, prior to explaining the operation of the actual image transmission, the process for automatically storing the terminal type information in the transmission destination type storing table of the information storing unit 14 upon receiving the electronic mail will be explained.

The CPU 11 will perform the process upon receiving the mail as shown in FIG. 4 if the electronic mail addressed to itself arrives via the LAN circuit 5.

In this process upon receiving the mail, the CPU 11 at first checks whether the attached file is attached to the arrived electronic mail or not (step ST1). If the attached file is attached to the arrived electronic mail, the CPU 11 subsequently extracts the mail address of the transmitter from the electronic mail and checks whether this mail address has been already stored in the transmission destination type storing table of the information storing unit 14 (step ST2). Then, if the corresponding mail address is not stored in the transmission destination type storing table of the information storing unit 14, the CPU 11 stores the mail address of the electronic mail of the transmitter, which is received in this time, in the transmission destination type storing table of the information storing unit 14 (step ST3). Alternatively, if the corresponding mail address has been already stored in the transmission destination type storing table of the information storing unit 14, the CPU 11 passes the process at the step ST3.

Subsequently, the CPU 11 checks whether the attached file is a TIFF file in accordance with the ITU-T or not (step ST4). Then, if the attached file is the TIFF file in accordance with the ITU-T, the CPU 11 writes the terminal type information "IFAX" in a storage area of the terminal type information in accordance with a mail address of the transmitter in

the transmission destination type storing table of the information storing unit 14 (step ST5). On the contrary, if the attached file is not the TIFF file in accordance with the ITU-T, but the attached file is, for example, a PDF file or a bit map file or a TIFF file not in accordance with the ITU-T such as an image file of which resolution is a DPI (Dot Per Inch) or a file of a particular application soft ware or the like, the CPU 11 writes the terminal type information, i.e., "non-IFAX" in a storage area of the terminal type information in accordance with a mail address of the transmitter in the transmission destination terminal type storage table of the information storing unit 14 (step ST6).

After that, the CPU 11 performs the receiving mail process (step ST7). This receiving mail process serves to perform various processes in accordance with a content of the received electronic mail. For example, if it is in accordance with an Internet facsimile system of the ITU-T, an image is developed from the attached file and the printer 18 prints out the image.

Alternatively, when it is confirmed that the attached file is not attached to the electronic mail, which is received in this time in the step ST1, it is not possible to perform the processes from the step ST2 to the step ST6. Therefore, the CPU 11 passe these processes and shifts to the process in the step ST7 so

that it performs the receiving mail process.

Then, if this receiving mail process is terminated, the CPU 11 terminates the mail receiving process in this time.

5 If the original document is set on the scanner 17 and the image transmission is indicated via the computer network (a LAN and the Internet 7), the CPU 11 starts the image transmission process as shown in FIGS. 5 and 6.

10 In this image transmission process, at first, the CPU 11 receives the mail address of the transmission destination, the transmission system and the user designation by the transmission confirmation mode (step ST11 in FIG. 5). Subsequently, the image data to be
15 generated by the scanner 17 is stored in the image storing unit 15.

 In the next place, the CPU 11 checks whether the mail address designated in the step ST11 is stored in the transmission destination terminal type storage
20 table of the information storing unit 14 or not (step ST13). Here, if the designated mail address is not stored in the transmission destination terminal type storage table of the information storing unit 14, the CPU 11 checks the user designation in the transmission
25 system (step ST14) and the CPU 11 performs the well known Internet facsimile transmission (IFAX transmission) process or the PDF transmission process

(step ST15 or step ST16). If the image transmission is terminated, the CPU 11 terminates the image transmission process in this time.

On the contrary, if it is confirmed that the mail address designated in the step ST11 is stored in the transmission destination terminal type storage table of the information storing unit 14 in the step ST13, the CPU 11 checks whether the Internet facsimile transmission system is designated by the user's designation of the transmission system or not (step ST17 in FIG. 6).

If the Internet facsimile transmission system is designated, the CPU 11 checks whether the terminal type information is stored in the transmission destination terminal type storage table of the information storing unit 14 in association with a mail address designated in the step ST11 or not (step ST18). If the relevant terminal type information is stored, subsequently, the CPU 11 checks whether this terminal type information is "IFAX" or not (step ST19).

In the case that the relevant terminal type information is not "IFAX", namely, when the information of the transmission destination terminal type storage table of the information storing unit 14 indicates that a terminal type of a mail address of the transmission destination is not an Internet facsimile despite the user requires the Internet facsimile transmission, it

is possible to estimate that the user's designation of the transmission system is not appropriate. Accordingly, the CPU 11 makes the operating/displaying unit 24 display a certain message having a content for recommending the PDF transmission (step ST20). Then, in this condition, the CPU 11 receives the user's designation of the transmission system again (step ST21) and checks whether the transmission system designated in this time is the Internet facsimile transmission system or not (step ST22).

In the case that the user designates the PDF transmission in this time, namely, when the user alters the transmission system according to the displayed message, the CPU 11 subsequently checks whether ON of the transmission confirmation mode is designated in the step ST11 or not (step ST23). Then, if ON of the transmission confirmation mode is designated, the CPU 11 makes the operating/displaying unit 24 display a certain message having a content for recommending OFF of the transmission confirmation mode (step ST24). Then, in this condition, the CPU 11 receives the user's designation of the transmission confirmation mode again (step ST25) and performs the PDF transmission process in an ON/OFF condition in the transmission confirmation mode designated in this time (step ST26). Alternatively, if it is confirmed that OFF of the transmission confirmation mode is designated in the

step S23, the CPU 11 passes the step ST24 and the step ST25 and shifts to the process in the step ST26 so that it performs the PDF transmission process in the ON/OFF condition of the transmission confirmation mode
5 designated in the step ST11. Then, if this PDF transmission process is completed, the CPU 11 terminates the image transmission process in this time.

On the contrary, when it is confirmed that the terminal type information is not stored in the
10 transmission destination terminal type storage table of the information storing unit 14 in association with the mail address designated in the step ST11 in the step ST18, when it is confirmed that the terminal type information stored in the transmission destination
15 terminal type storage table of the information storing unit 14 in association with the mail address designated in the step ST11 is "IFAX" in the step ST19, and when it is confirmed that the transmission system designated in the step ST21 is the Internet facsimile transmission
20 system in the step ST22, the CPU 11 performs the Internet facsimile transmission process in the ON/OFF condition of the transmission confirmation mode designated in the step ST11 (step ST27). Then, if this Internet facsimile transmission process is completed,
25 the CPU 11 terminates the image transmission process in this time.

The operations when the user designates the

Internet facsimile transmission system as a
transmission system in the step ST11 are as described
above. On the contrary, if the PDF transmission
process is designated as a transmission system in the
5 step ST11, the CPU 11 checks whether the terminal type
information is stored in the transmission destination
terminal type storage table of the information storing
unit 14 in association with the mail address designated
in the step ST11 or not (step ST28). Then, if the
10 relevant terminal type information is stored therein,
the CPU 11 subsequently checks whether this terminal
type information is "non-IFAX" or not (step ST29).

If the relevant terminal type information is not
"non-IFAX" in this case, namely, when the information
15 of the transmission destination terminal type storage
table of the information storing unit 14 indicates that
a terminal type of a mail address of the transmission
destination is an Internet facsimile despite the user
requires the PDF transmission, it is possible to
20 estimate that the user's designation of the
transmission system is not appropriate. Accordingly,
the CPU 11 makes the operating/displaying unit 24
display a certain message having a content for
recommending the Internet facsimile transmission (step
25 ST30). Then, in this condition, the CPU 11 receives
the user's designation of the transmission system again
(step ST31) and checks whether the transmission system

designated in this time is the PDF transmission or not (step ST32).

In the case that the user designates the PDF transmission in this time, namely, when the user alters the transmission system according to the displayed message, the CPU 11 subsequently checks whether OFF of the transmission confirmation mode is designated in the step ST11 or not (step ST33). Then, if OFF of the transmission confirmation mode is designated, the CPU 11 makes the operating/displaying unit 24 display a certain message having a content for recommending ON of the transmission confirmation mode (step ST34). Then, in this condition, the CPU 11 receives the user's designation of the transmission confirmation mode again (step ST35), shifts to the process of the step ST27 and performs the Internet facsimile transmission process in an ON/OFF condition in the transmission confirmation mode designated in the step ST35. Alternatively, if it is confirmed that ON of the transmission confirmation mode is designated in the step S33, the CPU 11 passes the step ST34 and the step ST35 and shifts to the process in the step ST27 so that it performs the Internet facsimile transmission process in the ON/OFF condition of the transmission confirmation mode designated in the step ST11.

On the contrary, when it is confirmed that the terminal type information is not stored in the

transmission destination terminal type storage table of
the information storing unit 14 in association with the
mail address designated in the step ST28 in the step
ST18, when it is confirmed that the terminal type
5 information stored in the transmission destination
terminal type storage table of the information storing
unit 14 in association with the mail address designated
in the step ST11 is "non-IFAX" in the step ST29, and
when it is confirmed that the transmission system
10 designated in the step ST31 is the PDF transmission
system in the step ST32, the CPU 11 shifts to the
process of the step ST26 and performs the PDF
transmission process in the ON/OFF condition of
the transmission confirmation mode designated in the
15 step ST11.

As described above, according to the embodiment,
when the transmission system designated by the user is
different from the transmission system which is
appropriate for a terminal type of a terminal type
20 indicated by the terminal type information stored in
the transmission destination terminal type storage
table of the information storing unit 14 in association
with the mail address designated as a transmission
destination, a message is displayed to prompt the user
25 to alter the transmission method. Therefore, if the
user designates the transmission system by mistake, the
user is capable of knowing this fact, so that it is

possible to prevent the useless image transmission in a wrong transmission system by designating an appropriate transmission system again.

Alternatively, according to the embodiment, upon
5 receiving an electronic mail attached with the attached file, a terminal type of a transmitter of the electronic mail is identified on the basis of a file format of this attached file and the terminal type information is automatically stored in the transmission
10 destination terminal type storage table of the information storing unit 14 on the basis of the identified terminal type, so that it is not necessary for the user to check the terminal type of the partner's terminal or to register the terminal type
15 information. As a result, it is very convenient for the user.

Further, according to the embodiment, when ON of the transmission confirmation mode is designated when the user alters the designation of the transmission
20 system from the Internet facsimile transmission to the PDF transmission, or when OFF of the transmission confirmation mode is designated when the user alters the designation of the transmission system from the PDF transmission to the Internet facsimile transmission, a
25 message is displayed so as to prompt to alter the designation of the transmission confirmation mode. The Internet facsimile terminal normally has a function for

returning an information mail in response to the
transmission confirmation request, so that it is
effective to use a transmission confirmation mode. On
the contrary, a function for returning an information
5 mail in response to the transmission confirmation
request is not generally used in the computer terminal
and there is a low probability that the receiving side
transmits the information mail even if the transmitting
side uses the transmission confirmation mode, so that
10 there may be a possibility that the usage of the
transmission confirmation mode only results in
complication of the process. On this account, when
the user tries to perform the Internet facsimile
transmission, the transmission confirmation mode is
15 designated as ON. On the contrary, when the user tries
to perform the PDF transmission, there is a high
probability that the transmission confirmation mode is
designated as OFF. After the Internet facsimile
transmission is performed, the transmission
20 confirmation mode remains to be designated as ON and
after the PDF transmission is performed, the
transmission confirmation mode remains to be designated
as OFF.

If the transmission system is only changed from
25 such a condition, a relation between the transmission
system and the transmission confirmation mode becomes
inappropriate. In such a case, the user is capable of

knowing that a relation between the transmission system and the transmission confirmation mode becomes inappropriate, so that it becomes possible to perform the appropriate image transmission by designating a correct transmission confirmation mode condition again.

Alternatively, the present invention is not limited to the above described embodiment. For example, according to the above described embodiment, when the relevant terminal type information is not "IFAX", namely, when the information of the transmission destination terminal type storage table of the information storing unit 14 indicates that a terminal type of a mail address of the transmission destination is not an Internet facsimile despite the user requires the Internet facsimile transmission, the processes from the steps S20 to S22 are performed. However, these processes may be omitted. That is, when a terminal type of a mail address of a transmission destination is not the Internet facsimile even if the user requires the Internet facsimile transmission, it is estimated that the terminal type of the mail address of the transmission destination is a personal computer (PC). Accordingly, when a software capable of reading an image file of a TIFF file is loaded in a PC, there is no problem even if the image file of the TIFF file is transmitted to the PC, so that the information may be not provided.

For example, according to the above described embodiment, the terminal type information is automatically written in the transmission destination terminal type storage table of the information storing unit 14. However, the terminal type information designated by the user may be written therein.

Alternatively, according to the above described embodiment, the informing operation to prompt the user to check the designation of the transmission system and the informing operation to prompt the user to check the designation of the transmission confirmation mode are performed by displaying a message. However, for example, the informing operation may be performed in other manner such as reproducing a voice message or the like. Alternatively, an information command is transmitted to a computer terminal connected via the LAN circuit 5 and the informing operation may be performed at the computer terminal side.

Additionally, according to the above described embodiment, when a mail address which is not stored in the transmission destination terminal type storage table of the information storing unit 14, is a mail address of a transmitter of the received electronic mail, this mail address is stored in the transmission destination terminal type storage table of the information storing unit 14 and further, its terminal type information is stored in association with this

mail address. However, the terminal type information may be stored only with respect to a mail address stored in the transmission destination terminal type storage table of the information storing unit 14 in advance, namely, a mail address registered by the user in advance. Hereby, it is possible to prevent a junk mail.

Further, according to the above described embodiment, an example such that the present invention is applied to a digital complex machine is described. However, for example, it is possible to realize the present invention as a device, which is formed otherwise such as a device only having a function to transfer the image.

Alternatively, according to the above described embodiment, an Internet facsimile system defined by the ITU-T is used. However, the present invention can be applied in the case of using other Internet facsimile system such as a system which is uniquely defined, or the like.

Additionally, according to the above described embodiment, it is decided whether the transmission confirmation mode is used or not depending on the user's designation. However, for example, it is also possible that the transmission confirmation mode is automatically used upon the IFAX transmission and the transmission confirmation mode is not used upon the PDF

transmission.

Additional advantages and modifications will readily occur to those skilled in the art. Therefore, the invention in its broader aspects is not limited to the specific details and representative embodiments shown and described herein. Accordingly, various modifications may be made without departing from the spirit or scope of the general inventive concept as defined by the appended claims and their equivalents.

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